

# Weekly SARS-CoV-2 Sequencing Summary for the State of Maine

September 3rd, 2021

## SUMMARY

### Critical updates

- 6304 genomes sampled between March 10, 2020 and August 25, 2021 are included in the analysis
- 978 B.1.1.7-like (alpha) Variant of Concern have been identified
- 4 B.1.351 (beta) Variant of Concern have been identified
- 1059 B.1.617.2/AY.\* (delta) Variant of Concern have been identified
- 129 P.1-like (gamma) Variant of Concern have been identified

### Notable Updates

- Pangolin lineage classifications continue to undergo substantial rearrangement of designations.
  - AY.1-AY.22 has been created to capture geographically distinct lineages of B.1.617.2. These lineages are considered under the parent lineage delta. All AY.\* sublineages will be reported in aggregate until an individual lineage rises above 5% of cases sequenced in a single calendar month.
  - B.1.526 has been reconfigured with the majority of samples losing their pangolin designation. This is represented as a loss of B.1.526 in this report compared to earlier reports.
  - Q.1 & Q.2 has been created to capture geographically distinct lineages of B.1.1.7. These lineages are considered under the parent lineage alpha. All Q.\* sublineages will be reported in aggregate until a single lineage rises above 5% of cases sequenced in a single calendar month.

## IMPORTANCE

- Variants of Concern have increased transmission
- Variants of Concern have increased severity of disease based on hospitalization and case fatality rates
- Variants of Concern have decreased susceptibility to therapeutic agents such as monoclonal antibodies
- Variants of Concern could evade natural or vaccine-induced immunity

## CAVEATS and CONCERNS

- County information is missing in this analysis for ~45% of samples sequenced externally (e.g. CDC).
- Weekly biases exist due to uneven sampling across the state
- Need to reduce location bias by sequencing more samples from varying facilities and laboratories
- Turnaround times need to decrease to inform infection control practices
- Phylogenetic tree has no county metadata. Public release of county or aggregated-county metadata will aid regional analysis
- Phylogenetic tree has no PHI (an internal tree with PHI should be constructed)

## REFERENCES

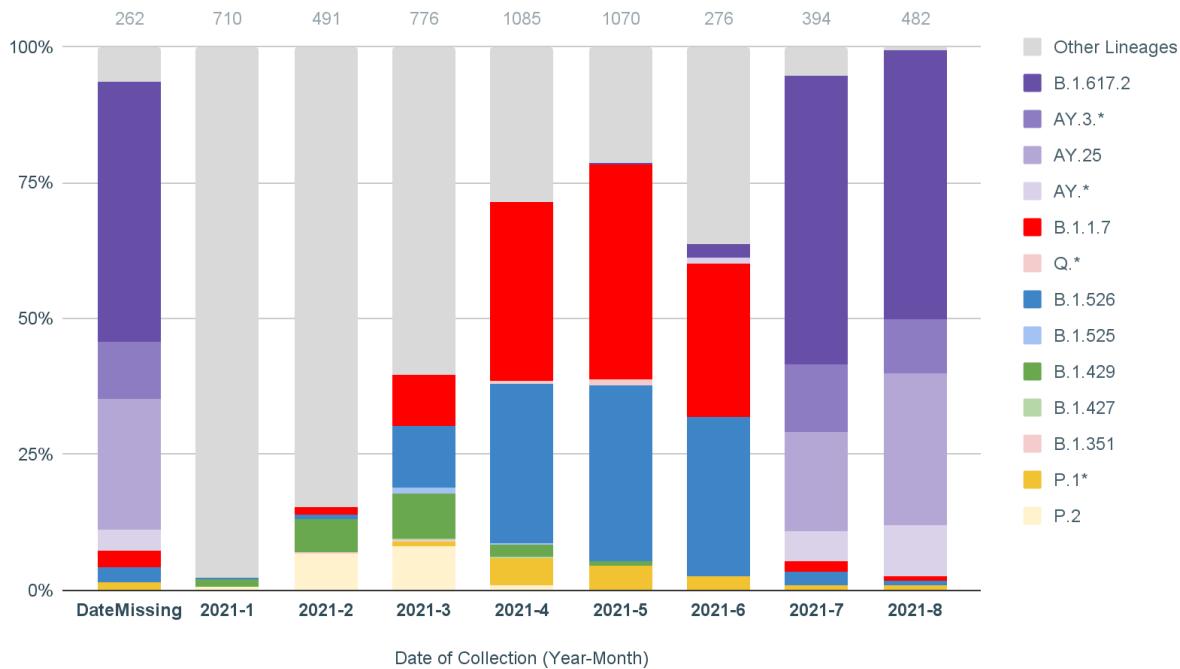
- <https://nextstrain.org/community/tewhey-lab/ncov-ME/latest>
- <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/variant-surveillance/variant-info.html>
- <https://covariants.org/>
- <https://outbreak.info/situation-reports>
- <https://nextstrain.org/>
- <https://github.com/tewhey-lab/ncov-ME>

Pangolin Lineage	WHO Label	CDC Category	Cumulative Count	May 2021	June 2021	July 2021	Aug 2021
<b>B.1.1.7 / Q.*</b>	Alpha	VOC	978	40.6%	28.3%	1.8%	0.6%
<b>B.1.351</b>	Beta	VOC	4	0.0%	0.0%	0.0%	0.0%
<b>P.1*</b>	Gamma	VOC	129	4.4%	2.5%	1.0%	1.0%
<b>B.1.617.2 / AY.*</b>	Delta	VOC	1059	0.3%	3.6%	89.3%	96.9%
<b>B.1.427 / B.1.429</b>	Epsilon	VOI	154	1.0%	0.0%	0.0%	0.0%
<b>P.2</b>	Zeta	VOI	115	0.0%	0.0%	0.0%	0.0%
<b>B.1.525</b>	Eta	VOI	8	0.0%	0.0%	0.0%	0.0%
<b>B.1.526</b>	Iota	VOI	872	32.3%	29.3%	2.5%	0.8%
<b>C.37.*</b>	Lambda	VOI	2	0.1%	0.0%	0.0%	0.0%
<b>B.1.621.*</b>	Mu		56	0.3%	10.9%	2.8%	0.0%
<b>Total VOI/VOC Sequenced</b>			3377	846	206	384	479
<b>Total Cases Sequenced</b>			6304	1071	276	394	482

**Table 1:** Proportion of cases sequenced classified as a variant of interest or concern by month.

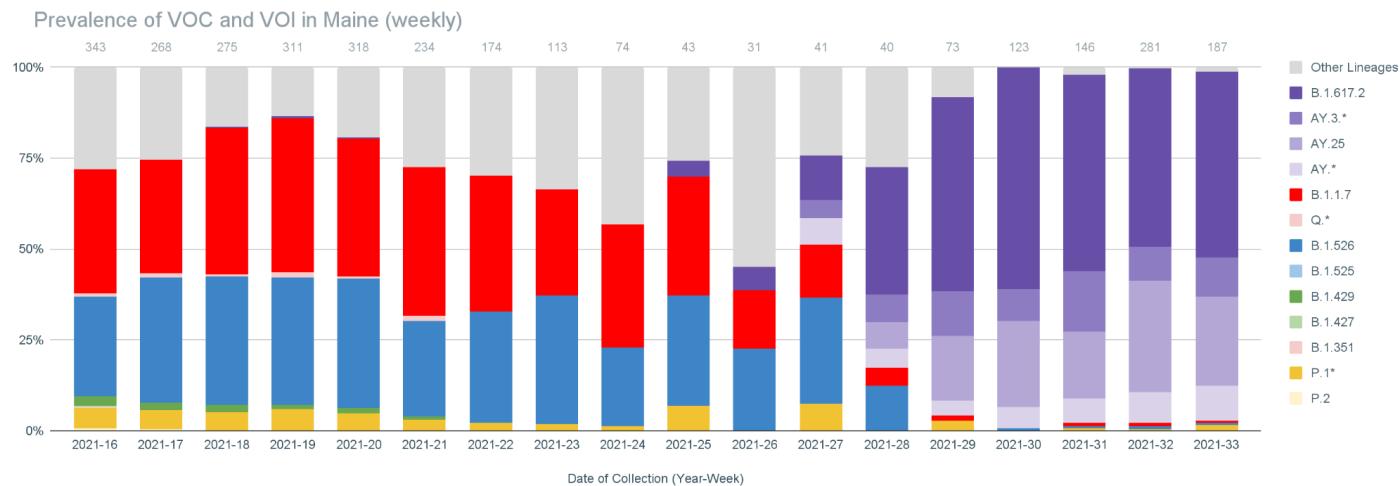
Lineages with “\*” include the parent lineage and all sublineages (e.g. P.1\* include P.1, P.1.1, & P.1.2)

### Prevalence of VOC and VOI in Maine (monthly)



**Figure 1:** Proportion of samples typed as VOC and VOI by month. Samples represented as “DateMissing” include samples sequenced in the past 60 days without metadata.

Lineages with “\*” include the parent lineage and all sublineages (e.g. P.1\* include P.1, P.1.1, P.1.2 & P.1.10)  
AY.\* does not include A.3.\* and A.25 which are provided separately.

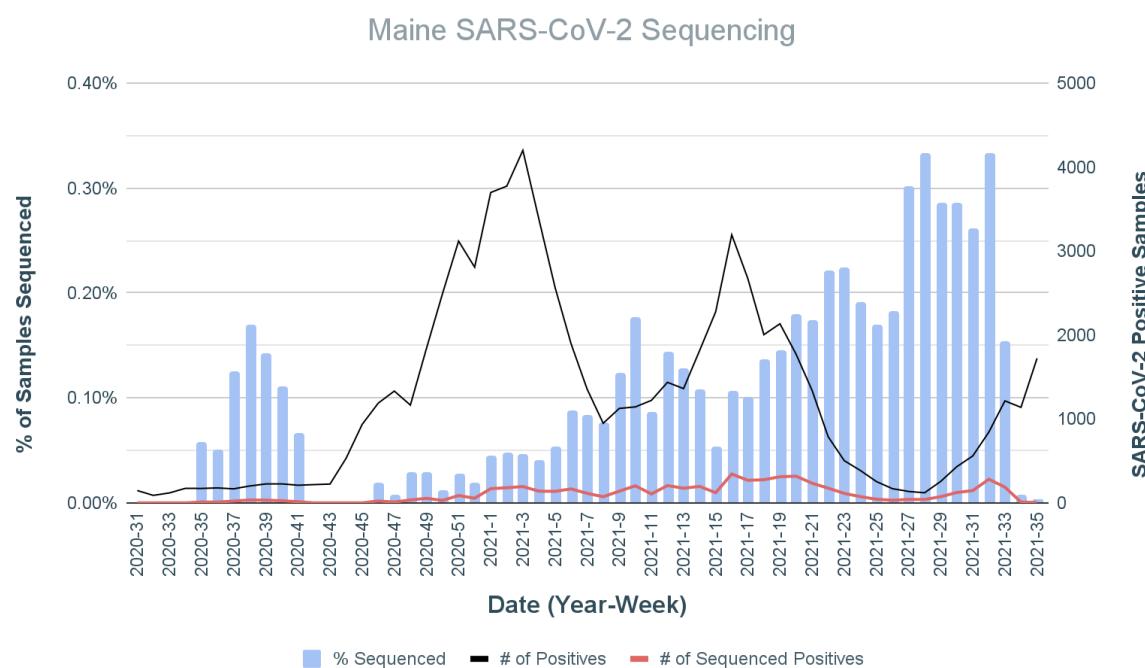


**Figure 2:** Proportion of samples typed as VOC and VOI by week.

Lineages with “\*” include the parent lineage and all sublineages (e.g. P.1\* include P.1, P.1.1, P.1.2 & P.1.10)

Mutation	Gene	Category	Cumulative Count	May 2021	June 2021	July 2021	Aug 2021
<b>S:E484K</b>	Spike	Substitution	551	13.2%	21.4%	4.3%	1.0%
<b>S:L452R</b>	Spike	Substitution	1683	18.5%	25.4%	90.4%	95.0%

**Table 2:** Proportion of cases sequenced with substitutions of therapeutic concern



**Figure 3:** Proportion of COVID-19 positive samples sequenced.

Sample Collection Date	JAX	HETL	CDC	Other
Missing Date	291	0	0	0
Pre-Sept 2020	119	0	0	8
Sept 2020	116	0	0	0
Oct 2020	19	0	0	0
Nov 2020	98	0	0	0
Dec 2020	300	0	12	2
Jan 2021	602	0	88	20
Feb 2021	347	13	120	11
Mar 2021	525	16	216	19
Apr 2021	643	83	343	17
May 2021	703	59	299	10
June 2021	226	0	44	6
July 2021	357	0	35	2
Aug 2021	409	0	56	17
Sept 2021	0	0	0	0

**Table 3:** Total number of samples sequenced. Only Sequences passing quality metrics are included. CDC totals include samples from federal contracts (LabCorp, Helix, Broad) and 10 samples requested from HETL every 2 weeks via the NS3 surveillance program.

	Total	07/25/21 - 07/31/21	08/01/21 - 08/07/21	08/08/21 - 08/14/21	08/15/21 - 08/21/21
<b>Total number of cases sequenced</b>	6304	146	281	187	9
<b>Total positive tests by molecular testing</b>	59231	N/A	N/A	N/A	N/A
<b>Total positive tests</b>	86716	559	843	1215	1138
<b>Percent of positives sequenced (molecular)</b>	10.64%	-	-	-	-
<b>Percent of positives sequenced (total)</b>	7.27%	26.12%	33.33%	15.39%	0.79%

**Table 4:** Total proportion of positive tests sequenced.

**Supplemental Table 1:** VOC/VOI proportion and total counts by county. Sequences obtained through GISAID (CDC, HETL, Other) are not included in the by-county breakdown.

AY.\* does not include A.3.\* and A.25 which are provided separately.

Variant	County	Cumulative % (total count)	May 2021	June 2021	June 2021	August 2021
P.1*	ANDROSCOGGIN	1.7% (12)	5.5% (7)	5.9% (1)	0% (0)	0% (0)
P.1*	AROOSTOOK	9.0% (20)	24.5% (13)	0% (0)	5.6% (1)	9.5% (2)
P.1*	CUMBERLAND	2.1% (20)	3.7% (4)	9.1% (2)	0% (0)	2.0% (1)
P.1*	FRANKLIN	0.9% (1)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	HANCOCK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	KENNEBEC	1.8% (7)	3.2% (3)	0% (0)	3.6% (1)	0% (0)
P.1*	KNOX	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	LINCOLN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	OXFORD	1.7% (4)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	PENOBCOT	3.1% (21)	7.3% (13)	0% (0)	4.9% (2)	0% (0)
P.1*	SAGADAHOC	1.6% (1)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	SOMERSET/PISCATAQUIS	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	WALDO	1.2% (2)	0% (0)	33.3% (2)	0% (0)	0% (0)
P.1*	WASHINGTON	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.1*	YORK	2.1% (13)	3.2% (3)	4.7% (2)	0% (0)	1.9% (1)
P.1*	<b>Total (w/ county information)</b>	<b>2.1% (101)</b>	<b>4.8% (43)</b>	<b>2.9% (7)</b>	<b>1.1% (4)</b>	<b>1.0% (4)</b>
P.1*	<b>Total</b>	<b>2.0% (129)</b>	<b>4.4% (47)</b>	<b>2.5% (7)</b>	<b>1.0% (4)</b>	<b>1.0% (5)</b>
B.1.351	ANDROSCOGGIN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	AROOSTOOK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	CUMBERLAND	0.1% (1)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	FRANKLIN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	HANCOCK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	KENNEBEC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	KNOX	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	LINCOLN	2.2% (2)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	OXFORD	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	PENOBCOT	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	SAGADAHOC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	SOMERSET/PISCATAQUIS	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	WALDO	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	WASHINGTON	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	YORK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.351	<b>Total (w/ county information)</b>	<b>0.1% (3)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>
B.1.351	<b>Total</b>	<b>0.1% (4)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>
B.1.1.7	ANDROSCOGGIN	17.2% (125)	31.3% (40)	23.5% (4)	0% (0)	0% (0)
B.1.1.7	AROOSTOOK	10.4% (23)	26.4% (14)	16.7% (2)	5.6% (1)	4.8% (1)
B.1.1.7	CUMBERLAND	15.9% (150)	44.4% (48)	22.7% (5)	1.8% (1)	0% (0)
B.1.1.7	FRANKLIN	17.6% (19)	21.4% (3)	62.5% (5)	14.3% (1)	0% (0)
B.1.1.7	HANCOCK	13.0% (16)	34.6% (9)	50.0% (1)	0% (0)	0% (0)
B.1.1.7	KENNEBEC	12.7% (48)	31.9% (30)	41.7% (10)	0% (0)	0% (0)
B.1.1.7	KNOX	11.8% (12)	57.1% (8)	75.0% (3)	0% (0)	0% (0)
B.1.1.7	LINCOLN	41.8% (38)	76.2% (16)	33.3% (1)	0% (0)	0% (0)
B.1.1.7	OXFORD	16.9% (41)	46.9% (15)	53.8% (7)	11.1% (2)	0% (0)
B.1.1.7	PENOBCOT	15.1% (103)	41.8% (74)	24.5% (13)	0% (0)	1.4% (1)
B.1.1.7	SAGADAHOC	23.0% (14)	52.9% (9)	50.0% (1)	0% (0)	0% (0)
B.1.1.7	SOMERSET/PISCATAQUIS	19.6% (62)	44.3% (39)	12.5% (3)	5.9% (1)	0% (0)
B.1.1.7	WALDO	6.5% (11)	34.8% (8)	33.3% (2)	0% (0)	0% (0)
B.1.1.7	WASHINGTON	10.1% (8)	44.4% (4)	22.2% (2)	0% (0)	11.1% (1)
B.1.1.7	YORK	15.8% (98)	39.4% (37)	25.6% (11)	1.2% (1)	0% (0)
B.1.1.7	<b>Total (w/ county information)</b>	<b>15.8% (768)</b>	<b>39.4% (354)</b>	<b>28.9% (70)</b>	<b>2.0% (7)</b>	<b>0.8% (3)</b>
B.1.1.7	<b>Total</b>	<b>15.2% (960)</b>	<b>39.7% (425)</b>	<b>28.3% (78)</b>	<b>1.8% (7)</b>	<b>0.6% (3)</b>

**Supplemental Table 1 continued:**

Variant	County	Cumulative % (total count)	May 2021	June 2021	June 2021	August 2021
Q.*	ANDROSCOGGIN	1.1% (8)	3.1% (4)	0% (0)	0% (0)	0% (0)
Q.*	AROOSTOOK	0.5% (1)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	CUMBERLAND	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	FRANKLIN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	HANCOCK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	KENNEBEC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	KNOX	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	LINCOLN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	OXFORD	0.4% (1)	3.1% (1)	0% (0)	0% (0)	0% (0)
Q.*	PENOBCOT	0.4% (3)	1.1% (2)	0% (0)	0% (0)	0% (0)
Q.*	SAGADAHOC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	SOMERSET/PISCATAQUIS	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	WALDO	1.2% (2)	8.7% (2)	0% (0)	0% (0)	0% (0)
Q.*	WASHINGTON	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	YORK	0.3% (2)	0% (0)	0% (0)	0% (0)	0% (0)
Q.*	<b>Total (w/ county information)</b>	0.3% (17)	1.0% (9)	0% (0)	0% (0)	0% (0)
Q.*	<b>Total</b>	0.3% (18)	0.9% (10)	0% (0)	0% (0)	0% (0)
B.1.429	ANDROSCOGGIN	1.4% (10)	1.6% (2)	0% (0)	0% (0)	0% (0)
B.1.429	AROOSTOOK	5.4% (12)	13.2% (7)	0% (0)	0% (0)	0% (0)
B.1.429	CUMBERLAND	4.1% (39)	1.9% (2)	0% (0)	0% (0)	0% (0)
B.1.429	FRANKLIN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	HANCOCK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	KENNEBEC	1.8% (7)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	KNOX	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	LINCOLN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	OXFORD	1.7% (4)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	PENOBCOT	2.9% (20)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	SAGADAHOC	1.6% (1)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	SOMERSET/PISCATAQUIS	0.3% (1)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	WALDO	0.6% (1)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	WASHINGTON	1.3% (1)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.429	YORK	2.1% (13)	0% (0)	0% (0)	0% (0)	0% (0)
<b>B.1.429</b>	<b>Total (w/ county information)</b>	2.2% (109)	1.2% (11)	0% (0)	0% (0)	0% (0)
<b>B.1.429</b>	<b>Total</b>	2.4% (150)	1.0% (11)	0% (0)	0% (0)	0% (0)
B.1.525	ANDROSCOGGIN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	AROOSTOOK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	CUMBERLAND	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	FRANKLIN	2.8% (3)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	HANCOCK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	KENNEBEC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	KNOX	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	LINCOLN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	OXFORD	1.7% (4)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	PENOBCOT	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	SAGADAHOC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	SOMERSET/PISCATAQUIS	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	WALDO	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	WASHINGTON	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
B.1.525	YORK	0.2% (1)	0% (0)	0% (0)	0% (0)	0% (0)
<b>B.1.525</b>	<b>Total (w/ county information)</b>	0.2% (8)	0% (0)	0% (0)	0% (0)	0% (0)
<b>B.1.525</b>	<b>Total</b>	0.1% (8)	0% (0)	0% (0)	0% (0)	0% (0)

**Supplemental Table 1 continued:**

Variant	County	Cumulative % (total count)	May 2021	June 2021	June 2021	August 2021
B.1.526	ANDROSCOGGIN	19.8% (144)	43.0% (55)	35.3% (6)	0% (0)	5.9% (1)
B.1.526	AROOSTOOK	3.2% (7)	7.5% (4)	0% (0)	0% (0)	0% (0)
B.1.526	CUMBERLAND	10.7% (101)	30.6% (33)	45.5% (10)	1.8% (1)	0% (0)
B.1.526	FRANKLIN	11.1% (12)	42.9% (6)	37.5% (3)	0% (0)	0% (0)
B.1.526	HANCOCK	13.8% (17)	38.5% (10)	50.0% (1)	10.0% (1)	0% (0)
B.1.526	KENNEBEC	20.3% (77)	42.6% (40)	37.5% (9)	7.1% (2)	6.7% (1)
B.1.526	KNOX	20.6% (21)	35.7% (5)	25.0% (1)	0% (0)	0% (0)
B.1.526	LINCOLN	4.4% (4)	14.3% (3)	0% (0)	0% (0)	0% (0)
B.1.526	OXFORD	13.6% (33)	18.8% (6)	15.4% (2)	22.2% (4)	0% (0)
B.1.526	PENOBCOT	11.3% (77)	28.8% (51)	22.6% (12)	0% (0)	2.7% (2)
B.1.526	SAGADAHOC	29.5% (18)	41.2% (7)	50.0% (1)	0% (0)	0% (0)
B.1.526	SOMERSET/PISCATAQUIS	23.3% (74)	37.5% (33)	62.5% (15)	11.8% (2)	0% (0)
B.1.526	WALDO	9.5% (16)	43.5% (10)	33.3% (2)	0% (0)	0% (0)
B.1.526	WASHINGTON	25.3% (20)	44.4% (4)	77.8% (7)	0% (0)	0% (0)
B.1.526	YORK	9.6% (60)	26.6% (25)	4.7% (2)	0% (0)	0% (0)
<b>B.1.526</b>	<b>Total (w/ county information)</b>	<b>14.0% (681)</b>	<b>32.5% (292)</b>	<b>29.3% (71)</b>	<b>2.9% (10)</b>	<b>1.0% (4)</b>
<b>B.1.526</b>	<b>Total</b>	<b>13.8% (872)</b>	<b>32.3% (346)</b>	<b>29.3% (81)</b>	<b>2.5% (10)</b>	<b>0.8% (4)</b>
B.1.617.2	ANDROSCOGGIN	1.4% (10)	0% (0)	0% (0)	41.7% (5)	29.4% (5)
B.1.617.2	AROOSTOOK	11.3% (25)	0% (0)	0% (0)	72.2% (13)	57.1% (12)
B.1.617.2	CUMBERLAND	6.3% (59)	0% (0)	13.6% (3)	52.7% (29)	52.9% (27)
B.1.617.2	FRANKLIN	3.7% (4)	0% (0)	0% (0)	28.6% (2)	33.3% (2)
B.1.617.2	HANCOCK	7.3% (9)	0% (0)	0% (0)	30.0% (3)	54.5% (6)
B.1.617.2	KENNEBEC	5.0% (19)	0% (0)	0% (0)	35.7% (10)	60.0% (9)
B.1.617.2	KNOX	18.6% (19)	0% (0)	0% (0)	50.0% (10)	47.4% (9)
B.1.617.2	LINCOLN	12.1% (11)	0% (0)	0% (0)	63.6% (7)	28.6% (4)
B.1.617.2	OXFORD	5.8% (14)	3.1% (1)	0% (0)	50.0% (9)	50.0% (3)
B.1.617.2	PENOBCOT	11.7% (80)	0% (0)	3.8% (2)	70.7% (29)	66.2% (49)
B.1.617.2	SAGADAHOC	3.3% (2)	0% (0)	0% (0)	0% (0)	100.0% (2)
B.1.617.2	SOMERSET/PISCATAQUIS	9.8% (31)	0% (0)	0% (0)	82.4% (14)	60.7% (17)
B.1.617.2	WALDO	13.6% (23)	0% (0)	0% (0)	29.6% (8)	22.1% (15)
B.1.617.2	WASHINGTON	8.9% (7)	0% (0)	0% (0)	66.7% (2)	55.6% (5)
B.1.617.2	YORK	11.1% (69)	2.1% (2)	4.7% (2)	48.2% (40)	46.3% (25)
<b>B.1.617.2</b>	<b>Total (w/ county information)</b>	<b>7.9% (382)</b>	<b>0.3% (3)</b>	<b>2.9% (7)</b>	<b>51.7% (181)</b>	<b>48.1% (190)</b>
<b>B.1.617.2</b>	<b>Total</b>	<b>9.2% (583)</b>	<b>0.3% (3)</b>	<b>2.5% (7)</b>	<b>53.0% (209)</b>	<b>49.4% (238)</b>
AY.3.*	ANDROSCOGGIN	1.5% (11)	0% (0)	0% (0)	16.7% (2)	52.9% (9)
AY.3.*	AROOSTOOK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
AY.3.*	CUMBERLAND	1.5% (14)	0% (0)	0% (0)	18.2% (10)	7.8% (4)
AY.3.*	FRANKLIN	0.9% (1)	0% (0)	0% (0)	0% (0)	16.7% (1)
AY.3.*	HANCOCK	1.6% (2)	0% (0)	0% (0)	10.0% (1)	9.1% (1)
AY.3.*	KENNEBEC	3.7% (14)	0% (0)	0% (0)	39.3% (11)	20.0% (3)
AY.3.*	KNOX	5.9% (6)	0% (0)	0% (0)	30.0% (6)	0% (0)
AY.3.*	LINCOLN	1.1% (1)	0% (0)	0% (0)	9.1% (1)	0% (0)
AY.3.*	OXFORD	0.8% (2)	0% (0)	0% (0)	11.1% (2)	0% (0)
AY.3.*	PENOBCOT	1.0% (7)	0% (0)	0% (0)	4.9% (2)	6.8% (5)
AY.3.*	SAGADAHOC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
AY.3.*	SOMERSET/PISCATAQUIS	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
AY.3.*	WALDO	3.0% (5)	0% (0)	0% (0)	7.4% (2)	4.4% (3)
AY.3.*	WASHINGTON	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
AY.3.*	YORK	3.5% (22)	0% (0)	0% (0)	13.3% (11)	20.4% (11)
<b>AY.3.*</b>	<b>Total (w/ county information)</b>	<b>1.7% (85)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>13.7% (48)</b>	<b>9.4% (37)</b>
<b>AY.3.*</b>	<b>Total</b>	<b>2.0% (125)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>12.4% (49)</b>	<b>10.0% (48)</b>

**Supplemental Table 1 continued:**

Variant	County	Cumulative % (total count)	May 2021	June 2021	June 2021	August 2021
AY.25	ANDROSCOGGIN	0.4% (3)	0% (0)	0% (0)	8.3% (1)	11.8% (2)
AY.25	AROOSTOOK	2.7% (6)	0% (0)	0% (0)	11.1% (2)	19.0% (4)
AY.25	CUMBERLAND	2.4% (23)	0% (0)	0% (0)	10.9% (6)	33.3% (17)
AY.25	FRANKLIN	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
AY.25	HANCOCK	3.3% (4)	0% (0)	0% (0)	20.0% (2)	18.2% (2)
AY.25	KENNEBEC	1.1% (4)	0% (0)	0% (0)	10.7% (3)	6.7% (1)
AY.25	KNOX	8.8% (9)	0% (0)	0% (0)	5.0% (1)	42.1% (8)
AY.25	LINCOLN	9.9% (9)	0% (0)	0% (0)	18.2% (2)	50.0% (7)
AY.25	OXFORD	0.8% (2)	0% (0)	0% (0)	5.6% (1)	16.7% (1)
AY.25	PENOBCOT	1.8% (12)	0% (0)	0% (0)	9.8% (4)	10.8% (8)
AY.25	SAGADAHOC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
AY.25	SOMERSET/PISCATAQUIS	1.3% (4)	0% (0)	0% (0)	0% (0)	14.3% (4)
AY.25	WALDO	39.1% (66)	0% (0)	0% (0)	59.3% (16)	73.5% (50)
AY.25	WASHINGTON	2.5% (2)	0% (0)	0% (0)	0% (0)	22.2% (2)
AY.25	YORK	6.1% (38)	0% (0)	0% (0)	27.7% (23)	27.8% (15)
<b>AY.25</b>	<b>Total (w/ county information)</b>	<b>3.7% (182)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>17.4% (61)</b>	<b>30.6% (121)</b>
<b>AY.25</b>	<b>Total</b>	<b>4.3% (270)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>18.3% (72)</b>	<b>28.0% (135)</b>
AY.*	ANDROSCOGGIN	0.4% (3)	0% (0)	11.8% (2)	8.3% (1)	0% (0)
AY.*	AROOSTOOK	1.4% (3)	0% (0)	0% (0)	5.6% (1)	9.5% (2)
AY.*	CUMBERLAND	0.5% (5)	0% (0)	4.5% (1)	5.5% (3)	2.0% (1)
AY.*	FRANKLIN	6.5% (7)	0% (0)	0% (0)	57.1% (4)	50.0% (3)
AY.*	HANCOCK	4.1% (5)	0% (0)	0% (0)	30.0% (3)	18.2% (2)
AY.*	KENNEBEC	0.3% (1)	0% (0)	0% (0)	0% (0)	6.7% (1)
AY.*	KNOX	3.9% (4)	0% (0)	0% (0)	10.0% (2)	10.5% (2)
AY.*	LINCOLN	4.4% (4)	0% (0)	0% (0)	9.1% (1)	21.4% (3)
AY.*	OXFORD	0.8% (2)	0% (0)	0% (0)	0% (0)	33.3% (2)
AY.*	PENOBCOT	1.3% (9)	0% (0)	0% (0)	0% (0)	12.2% (9)
AY.*	SAGADAHOC	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
AY.*	SOMERSET/PISCATAQUIS	2.2% (7)	0% (0)	0% (0)	0% (0)	25.0% (7)
AY.*	WALDO	0.6% (1)	0% (0)	0% (0)	3.7% (1)	0% (0)
AY.*	WASHINGTON	1.3% (1)	0% (0)	0% (0)	33.3% (1)	0% (0)
AY.*	YORK	1.1% (7)	0% (0)	0% (0)	6.0% (5)	3.7% (2)
<b>AY.*</b>	<b>Total (w/ county information)</b>	<b>1.2% (59)</b>	<b>0% (0)</b>	<b>1.2% (3)</b>	<b>6.3% (22)</b>	<b>8.6% (34)</b>
<b>AY.*</b>	<b>Total</b>	<b>1.3% (81)</b>	<b>0% (0)</b>	<b>1.1% (3)</b>	<b>5.6% (22)</b>	<b>9.5% (46)</b>
P.2	ANDROSCOGGIN	0.6% (4)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	AROOSTOOK	2.3% (5)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	CUMBERLAND	0.5% (5)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	FRANKLIN	0.9% (1)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	HANCOCK	13.8% (17)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	KENNEBEC	0.5% (2)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	KNOX	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	LINCOLN	4.4% (4)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	OXFORD	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	PENOBCOT	2.5% (17)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	SAGADAHOC	3.3% (2)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	SOMERSET/PISCATAQUIS	8.5% (27)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	WALDO	1.8% (3)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	WASHINGTON	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
P.2	YORK	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
<b>P.2</b>	<b>Total (w/ county information)</b>	<b>1.8% (87)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>
<b>P.2</b>	<b>Total</b>	<b>1.8% (115)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>	<b>0% (0)</b>

**Supplemental Table 1 continued:**

Variant	County	Cumulative % (total count)	May 2021	June 2021	June 2021	August 2021
	ANDROSCOGGIN	45.5% (330)	84.4% (108)	76.5% (13)	75.0% (9)	100.0% (17)
	AROOSTOOK	45.9% (102)	71.7% (38)	16.7% (2)	100.0% (18)	100.0% (21)
	CUMBERLAND	44.2% (417)	80.6% (87)	95.5% (21)	90.9% (50)	98.0% (50)
	FRANKLIN	44.4% (48)	64.3% (9)	100.0% (8)	100.0% (7)	100.0% (6)
	HANCOCK	56.9% (70)	73.1% (19)	100.0% (2)	100.0% (10)	100.0% (11)
	KENNEBEC	47.2% (179)	77.7% (73)	79.2% (19)	96.4% (27)	100.0% (15)
	KNOX	69.6% (71)	92.9% (13)	100.0% (4)	95.0% (19)	100.0% (19)
	LINCOLN	80.2% (73)	90.5% (19)	33.3% (1)	100.0% (11)	100.0% (14)
	OXFORD	44.2% (107)	71.9% (23)	69.2% (9)	100.0% (18)	100.0% (6)
	PENOBCOT	51.2% (349)	79.1% (140)	50.9% (27)	90.2% (37)	100.0% (74)
	SAGADAHOC	62.3% (38)	94.1% (16)	100.0% (2)	0% (0)	100.0% (2)
	SOMERSET/PISCATAQUIS	65.0% (206)	81.8% (72)	75.0% (18)	100.0% (17)	100.0% (28)
	WALDO	76.9% (130)	87.0% (20)	100.0% (6)	100.0% (27)	100.0% (68)
	WASHINGTON	49.4% (39)	88.9% (8)	100.0% (9)	100.0% (3)	88.9% (8)
	YORK	51.9% (323)	71.3% (67)	39.5% (17)	96.4% (80)	100.0% (54)
Total VOI/VOC Sequenced	<b>Total (w/ county information)</b>	51.0% (2482)	79.3% (712)	65.3% (158)	95.1% (333)	99.5% (393)
Total VOI/VOC Sequenced	<b>Total</b>	52.6% (3315)	78.6% (842)	63.8% (176)	94.7% (373)	99.4% (479)
	ANDROSCOGGIN	726	128	17	12	17
	AROOSTOOK	222	53	12	18	21
	CUMBERLAND	944	108	22	55	51
	FRANKLIN	108	14	8	7	6
	HANCOCK	123	26	2	10	11
	KENNEBEC	379	94	24	28	15
	KNOX	102	14	4	20	19
	LINCOLN	91	21	3	11	14
	OXFORD	242	32	13	18	6
	PENOBCOT	681	177	53	41	74
	SAGADAHOC	61	17	2	0	2
	SOMERSET/PISCATAQUIS	317	88	24	17	28
	WALDO	169	23	6	27	68
	WASHINGTON	79	9	9	3	9
	YORK	622	94	43	83	54
Total Cases Sequenced	<b>Total (w/ county information)</b>	4866	898	242	350	395
Total Cases Sequenced	<b>Total</b>	6304	1071	276	394	482